

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A composition of matter comprising a peptide, said peptide consisting of
a sequence of no more than 25 amino acid residues linked by peptide bonds, at least the first five amino acids from the N-terminal of SEQ. ID. NO.: 2 and no more than 25 amino acids total said sequence of amino acid residues including SEQ ID NO: 4 .
2. (currently amended) A composition of matter as in claim 1 wherein the peptide ~~contains no more~~ consists of a sequence of no more than 15 amino acids total acid residues linked by peptide bonds.
3. (currently amended) A composition of matter as in claim 2 wherein the ~~peptide is as in~~ sequence of amino acid residues includes SEQ. ID. NO.: 3.
4. (currently amended) A composition of matter as in claim 1 wherein the peptide produces an antibody in an animal immunized with the peptide which has a binding affinity to NGFs from human body fluids blood serum, saliva and urine and human origin eukaryotic cells which is higher than a binding affinity exhibited by an antibody produced in an animal immunized with ~~in immunological response to an NGF derived from venom~~ SEQ ID NO: 1 .
5. (original) A method of using a composition of matter as in claim 1 comprising administering the composition of claim 1 to a patient in need of a nerve growth factor in a manner to reach the bloodstream of the patient, wherein the peptide is capable of crossing the blood-brain barrier.

6. (original) A method of use as in claim 5 wherein the patient is a victim of a neurodegenerative disease selected from the group consisting of Alzheimer's disease and Parkinson's disease and the administration technique is selected from the group consisting of nasal insufflation, buccal administration, oral ingestion, and intramuscular injection.

7. (original) A method of using a composition of matter as in claim 1 comprising forming antibodies against the peptide, and contacting, in vitro, a human nerve growth factor with the antibodies so as to cause the antibodies to react immunologically with the human nerve growth factor.

8. (original) A method for administering a nerve growth factor to a patient in need of such treatment, said method comprising

selecting a nerve growth factor having in the range of 5 to 20 amino acids, and capable of crossing the blood-brain barrier, and

administering said nerve growth factor to said patient in a manner to reach the bloodstream of the patient.

9. (original) A method as in claim 8 wherein the patient is a victim of a neurodegenerative disease selected from the group consisting of Alzheimer's disease and Parkinson's disease and the administration technique is selected from the group consisting of nasal insufflation, buccal administration, oral ingestion, and intramuscular injection.

10. (previously amended) A method as in claim 8 wherein the nerve growth factor consists of a peptide consisting of at least the first five amino acids from the N-terminal of SEQ. ID. NO.: 2.

11. (currently amended) A process comprising contacting, in vitro, a human nerve growth factor with an antibody made in an animal against a peptide ~~containing at least five amino acids from the N-terminal SEQ. ID. NO.: 2 and no more than 25 amino acids total~~ as recited in claim 1.

12. (previously amended) A process as in claim 11 wherein the contacting is carried out so as to cause the antibody to react immunologically with the human nerve growth factor.

13. (canceled)

14. (new) A composition of matter comprising a peptide molecule, said peptide molecule consisting essentially of a sequence of no more than 25 amino acid residues linked by peptide bonds, said sequence of amino acid residues including SEQ ID NO: 4.

15. (new) A composition of matter as in claim 15 wherein said peptide molecule consists of a sequence of no more than 15 amino acid residues linked by peptide bonds.

16. (new) A composition of matter as in claim 15 wherein said sequence of amino acid residues includes SEQ ID NO: 3.

17. (new) A peptide comprising SEQ ID NO: 4 beginning at the N-terminal and having a sequence length of no more than 25 amino acid residues.

18. (new) A peptide as in claim 17 having a sequence length of no more than 15 amino acid residues.

19. (new) A peptide as in claim 18 comprising SEQ ID NO: 3.

20. (new) A peptide selected from the group consisting of SEQ ID NO: 2 and a fragment of SEQ ID NO: 2 comprising SEQ ID NO: 4.

21. (new) A peptide as in claim 20 which consists of SEQ ID NO: 3.